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# TFS Tariff Structure & Economic Impact Assessment

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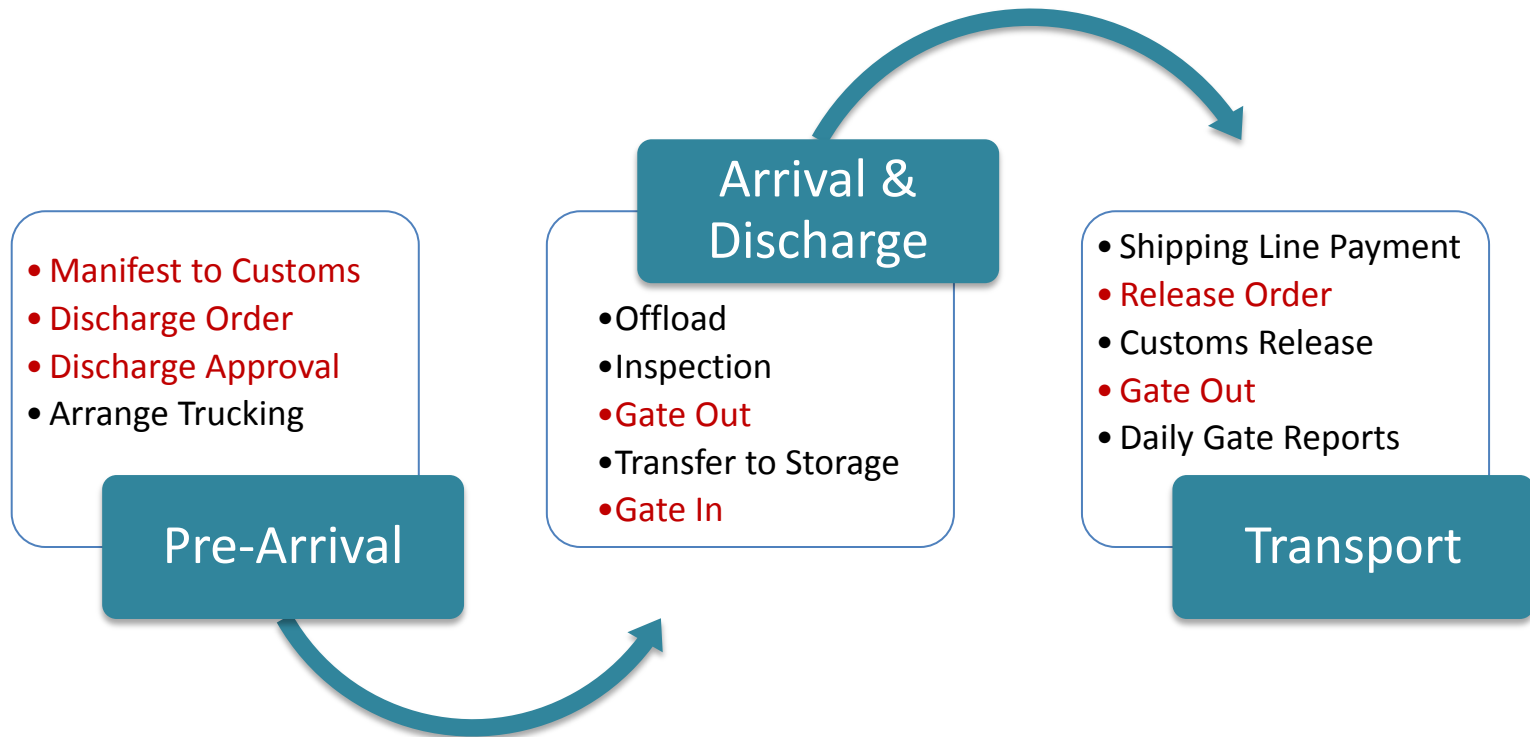
# Agenda

- Background
- Analysis
- Other TFS Systems
- Routing Considerations
- Conclusions
- Discussion



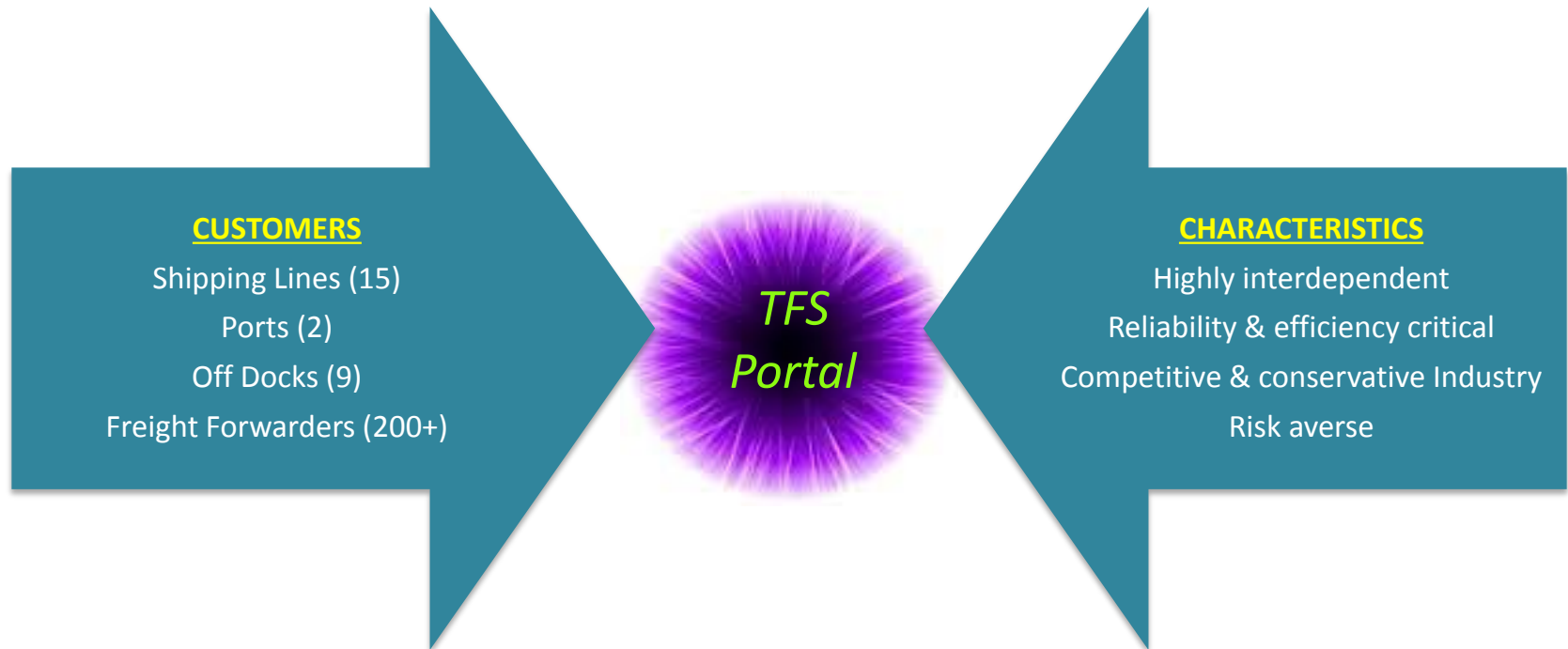
# BACKGROUND

# Overview of Current Port Process:





# Who are the initial customers?



# Assumptions

## For Analysis

- “Twenty Foot Equivalent Unit”
  - Standard metric through the chain
  - 40’ Container = 2 TEUs
  - 20’ Container = 1 TEU
- Each link presents an opportunity for benefit per TEU
- Benefits become additive
  - $(226,394) \times (4 \text{ links}) = 905,576$  TEUs

## For Fees

- Each link will experience different benefits from TFS
- Links are interdependent
- If the fee equals the value there is no incentive to switch
- System reliability & benefit must be proven before adoption



# ANALYSIS

# Expected Average Industry Benefits of Georgian TFS as presently proposed

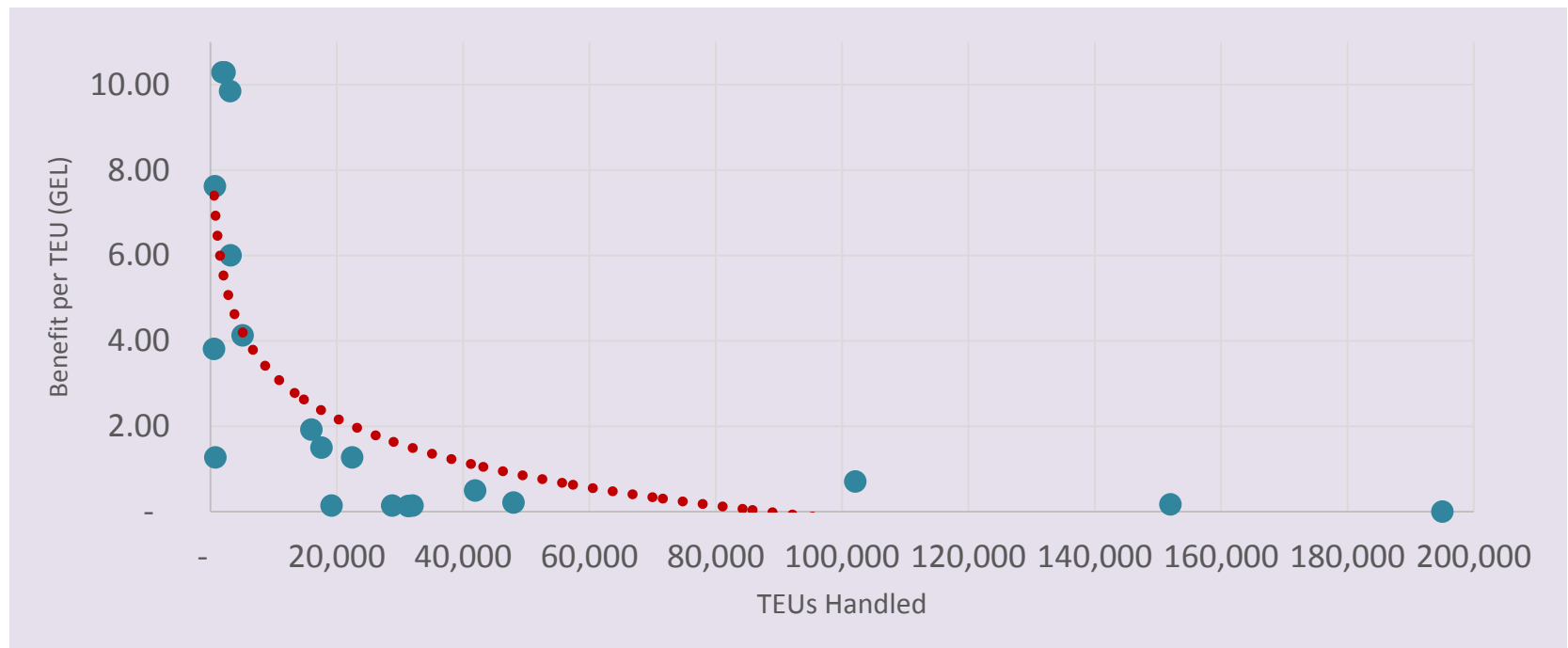
Summary of Benefits	Per TEU		Value @ 2014 Volumes	
	Max	Min	Max	Min
<b>Shipping Lines:</b>				
Transmission to Customs	0.05	0.05	11,809	10,802
Discharge Approvals	0.02	0.01	3,515	3,347
Discharge	0.24	0.24	54,924	54,924
Release Order	0.26	0.26	59,229	59,229
Paper	0.18	0.15	40,022	34,926
<b>Total</b>	<b>0.75</b>	<b>0.72</b>	<b>169,499</b>	<b>163,229</b>
<b>Ports:</b>				
Discharge & Release Orders	0.02	0.00	4,114	-
<b>Off Docks:</b>				
Gate-In updates	0.29	0.15	64,846	34,737
<b>Freight Forwarders:</b>				
Release Orders	3.50	3.50	792,457	792,457
<b>Total Industry Benefits (GEL):</b>	<b>4.55</b>	<b>4.37</b>	<b>1,030,917</b>	<b>990,423</b>

*Values Based on Time Savings & Labor costs; 2014 Import Volume is 266,394 TEUs: For details see Appendix - slides 28 to 39*





# TFS Value to members of Georgia's Logistics Community & the TEUs they handle



# What Does the Data Tell Us?

## Sensitivity based on Fees (GEL)

Fee	Total Revenue	TEUs	% Participation
0.00	0	608,823	100%
0.13	53,789	413,765	68%
0.24	80,493	335,389	55%
0.29	71,344	246,013	40%
0.36	78,404	217,789	36%
0.49	106,716	217,789	36%
0.70	123,100	175,856	29%
1.27	64,130	50,496	8%
1.50	49,344	32,896	5%
1.92	32,440	16,896	3%
3.81	62,179	16,320	3%
4.12	67,238	16,320	3%
6.00	48,000	8,000	1%
7.62	55,474	7,280	1%
9.85	40,976	4,160	1%
10.28	42,765	4,160	1%

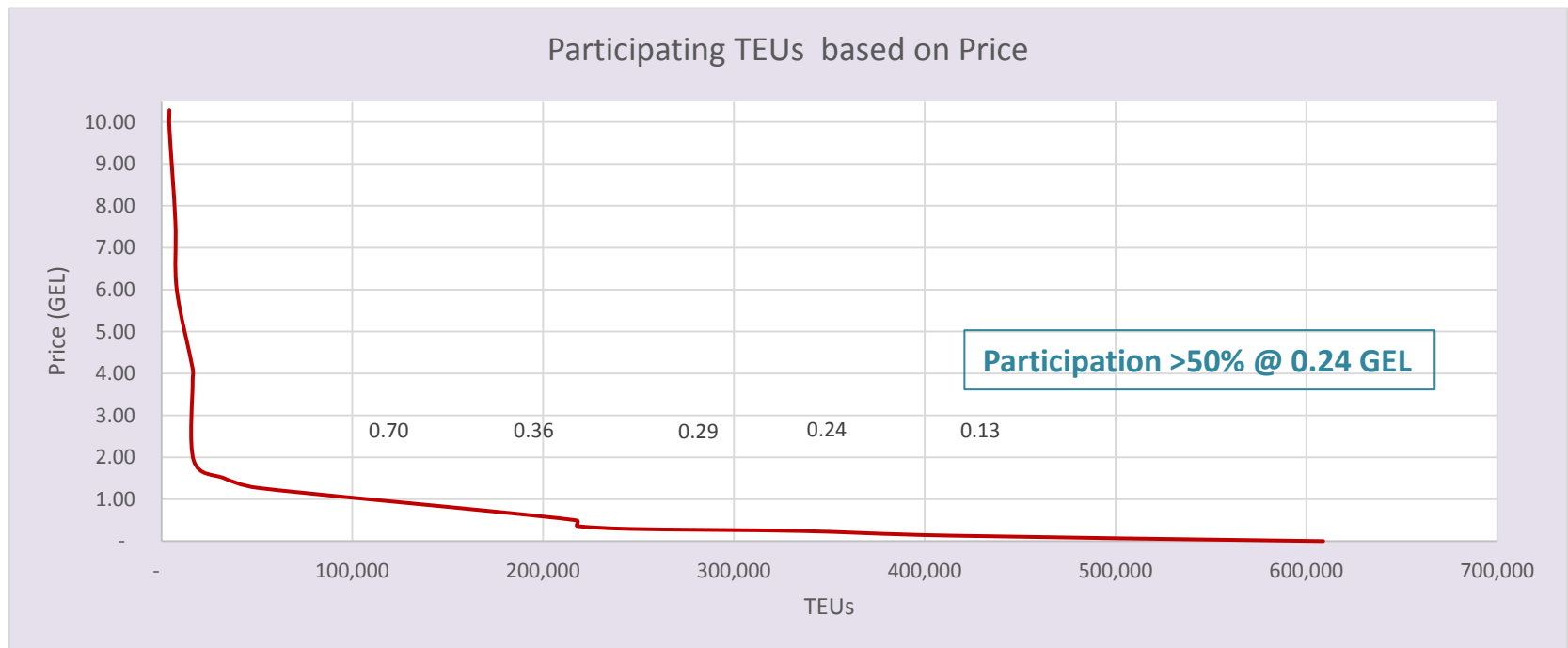
***At low participation rates, system benefits break down***

## What can be expected:

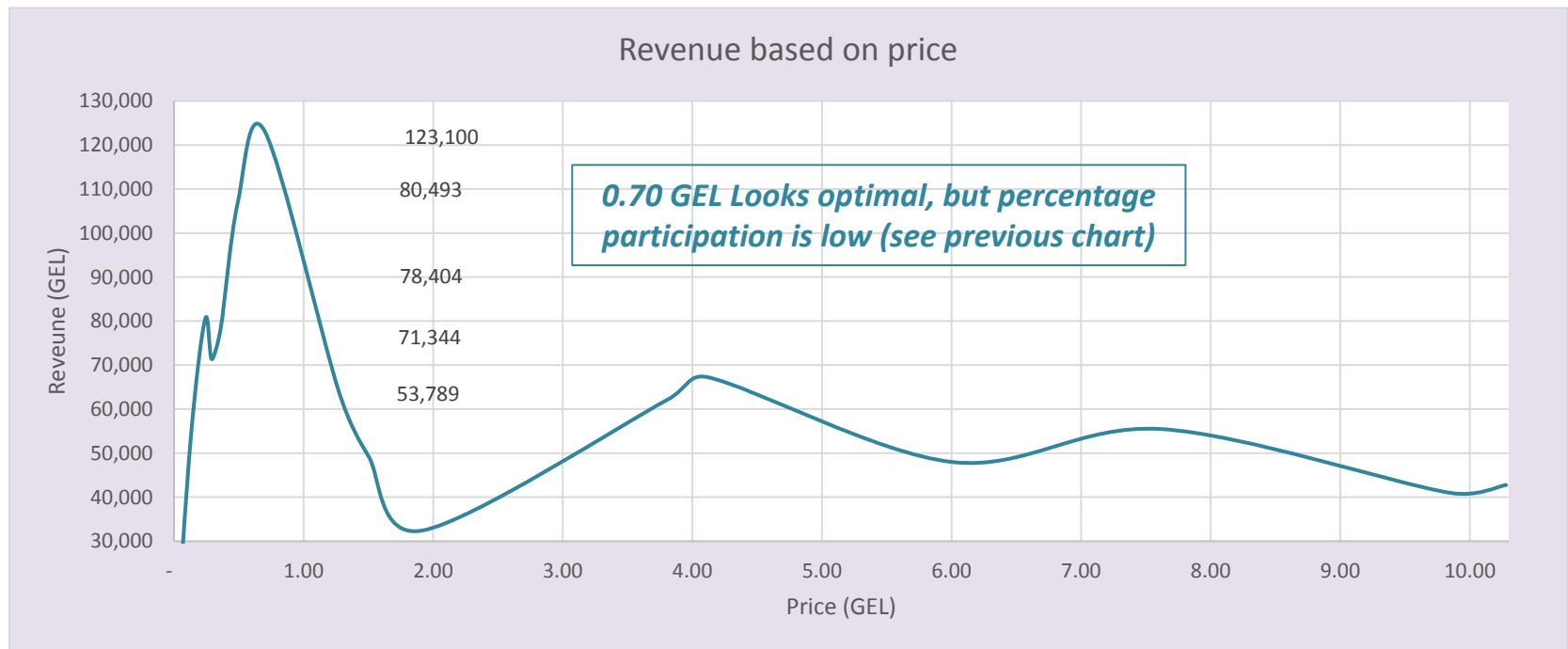
- **@ No fees: 100% Participation**
  - Poti Port is lost when fees charged (90% of Port Volume)
  - No Revenue
- **@ 0.13 GEL > 65% Participation**
  - Captures entire sample except Poti Port
  - Revenues around 50,000 GEL
- **@ 0.24 Gel > 50% Participation**
  - Lose ports and more efficient Off-Docks
  - Revenues around 80,000 GEL
- **@ 0.70 GEL <30% Participation**
  - Lose Ports, Off-Docks, & efficient Shipping Lines
  - Revenue Around 175,000 GEL
- **@1.27 GEL <10% Participation**
  - Lose Ports, Off Docks, majority of Shipping Volume
  - Revenue around 65,000 GEL

***As key links drop out, the system loses effectiveness***

# Price Sensitivity of Logistics Community: Participation



# Price Sensitivity of Logistics Community: Revenue





## Shipping lines

**Benefit Range 0.49 to 1.27 GEL**

Origin of the Data: Participation critical

Under tremendous global pricing pressure

Additional qualitative Benefit: Stress reduction

## Ports

**Benefit Range: 0.0 to 0.13 GEL**

Fees could increase Terminal Handling Charges

Expediting customs may impact gate throughput,  
but unable to realize gains at present due to  
other bottlenecks

***TFS Must have  
Users & Volumes***

## Off-Docks

**Benefit Range: 0.12 to 0.36 GEL**

Additional benefits may include pre-planning &...

If allows expediting, may shorten transit 1 day for  
10% of cargo: Saves \$1.37/\$50K @10% capital  
cost

## Freight Forwarders

**Benefit Range: 1.27 to 10.28 GEL**

Greatest direct beneficiaries; Smallest volumes  
If reduces release time by 1 day for 10% of cargo:  
Saves \$1.37/\$50K @ 10% capital cost





# OTHER TFS SYSTEMS

# Select Single Window Countries (Fees)

Country	2013 Import TEUs	Import Documents	Duration (Days)	2013 Import Cost (per TEU)	TFS Fee Charges	Specifics
Madagascar	172,986	9	21	\$1,555	Import Value Percentage	• 0.5% of import value
Senegal	428,171	6	24	\$1,940	Subscription; Per transaction; per document	• \$200 for Subscription • \$15/transaction (imports) • \$2/document
Mauritus	621,817	5	9	\$710	Software; Annual fee; Subscription & per Transaction	• \$1086.50 Software fee • \$108.65/per year • \$2.86/month • \$0.03/notification • \$0.09/KB sent
Columbia	2,718,138	6	13	\$2,470	Per Message & Per document	• \$15 for 1800 bytes • \$5/Certificate of Origin
Thailand	7,702,476	5	13	\$760	Per Kilobyte	• \$0.7 for <25 Kilobytes • \$0.03 for each additional maximum of \$8.40
Hong Kong	22,352,000	3	5	\$565	Per Document & Per Beneficiary	• \$0.32/document
Singapore	33,516,343	3	4	\$440	Subscription; Per transaction; per document	• \$35.55 ID Fee • \$13.85/month • \$2.49/declaration

There are multiple approaches to & a wide disparity in Fees

## Select Single Window Countries (No Fees)

Country	2013 Import TEUs	Documents	Duration (Days)	2013 Import Cost (per TEU)
Sweden	1,602,472	3	6	\$735
Finland	1,633,142	5	7	\$625
Philippines	5,860,226	7	15	\$660
South Korea	22,582,700	3	7	\$1,810
USA	44,255,378	5	5.4	\$1,276
Azerbaijan	N/A	11	25	\$3,560



# Trade Facilitation System

## Not matter of whether to implement, but a matter of when

- Countries now working to connect to regional single windows
- ASEAN countries developing a Single Window, to integrate 10 countries

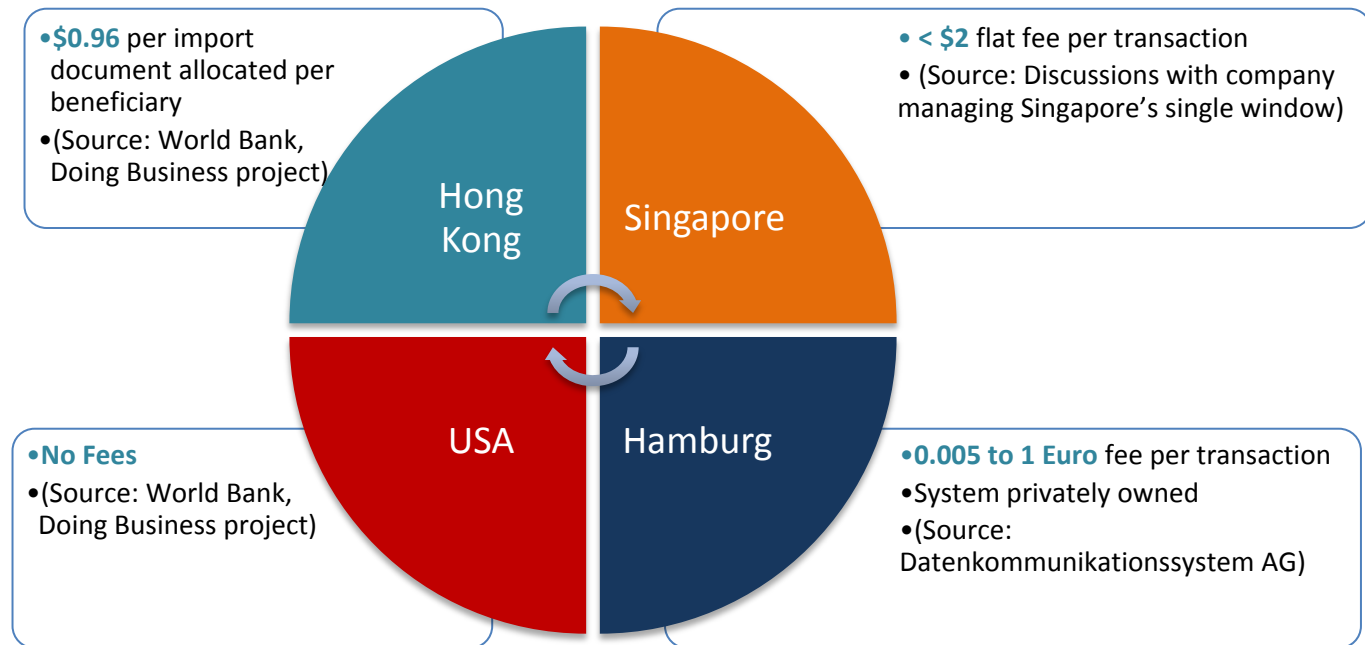
## Rising Trends:

- “Toll Road” concept focusing on Government to Business transactions
- All players pay the same for access
- Stay away from charging for Business to Business type transactions and benefits
- Focus on benefits provided by Government to Business transactions
- Preference for per document/per transaction fees

## Declining Trends:

- Kilobyte charges and per message charges are antiquated
- Charges for Cargo Value are “not the norm”

# Successful Transit Ports





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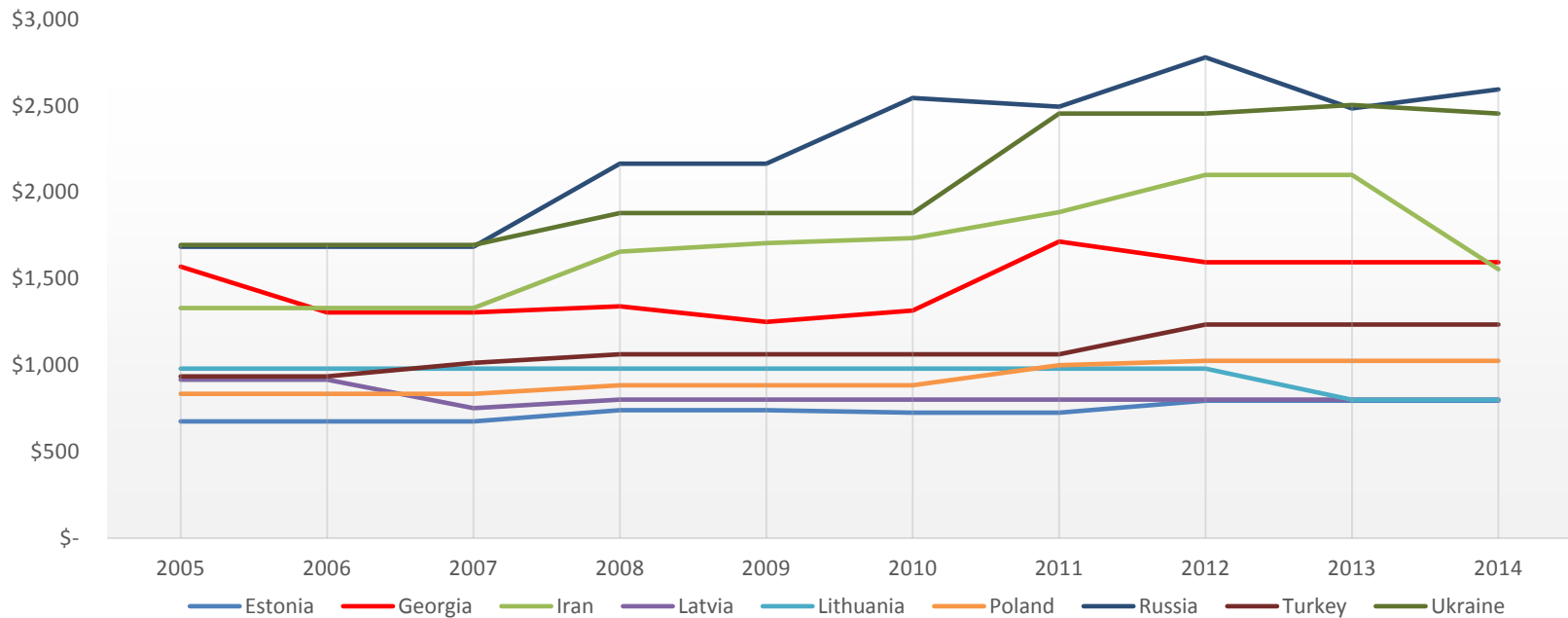
# ROUTING CONSIDERATIONS

## Georgian Port Costs

Import Costs	Duration (days)	Cost
Documents preparation	5	\$255
Customs clearance and inspections	1	\$240
Ports and terminal handling	2	\$300
Inland transportation and handling	2	\$800
<b>Totals:</b>	<b>10</b>	<b>\$1,595</b>

Source: <http://www.doingbusiness.org/data/exploreeconomies/georgia#trading-across-borders>

# Comparing Port Import Costs (Per TEU)



Source: World Bank, Doing Business project: <http://www.doingbusiness.org/>



## Comparing Price (USD):

US E. Cost/Baku 40' Container	Poti	Novorossiysk	Istanbul	Mersin
Ocean Rate	1900	1900	1650	1650
Terminal Handling	380	375	356	251
Trucking	1700	1800	3100	3500
<b>Total Cost</b>	<b>3980</b>	<b>4075</b>	<b>5106</b>	<b>5401</b>

Europe/Baku 40' Container	Poti	Novorossiysk	Istanbul	Mersin
Ocean Rate	1100	1100	850	850
Terminal Handling	380	375	356	251
Trucking	1700	1800	3100	3500
<b>Total Cost</b>	<b>3180</b>	<b>3275</b>	<b>4306</b>	<b>4601</b>

Asia/Baku 40' Container	Poti	Novorossiysk	Istanbul	Mersin	Bandar Abbas
Ocean Rate	1900	1650	1450	1450	1550
Terminal Handling	380	375	356	251	209
Trucking	1700	1800	3100	3500	2400
<b>Total Cost</b>	<b>3980</b>	<b>3825</b>	<b>4906</b>	<b>5201</b>	<b>4159</b>

Asia/Yerevan 40' Container	Poti	Bandar Abbas
Ocean Rate	1900	1550
Terminal Handling	380	209
Trucking	1000	3000
<b>Total Cost</b>	<b>3280</b>	<b>4759</b>

Sources: Rates supplied by Carrier and Freight Forwarders;

## Comparing Transit Times (Days):

US E. Cost/Baku 40' Container	Poti	Novorossiysk	Istanbul	Mersin
Ocean Transit	40	40	27	35
Inland Transit	2	4	6	6
Total Time	42	44	31	41

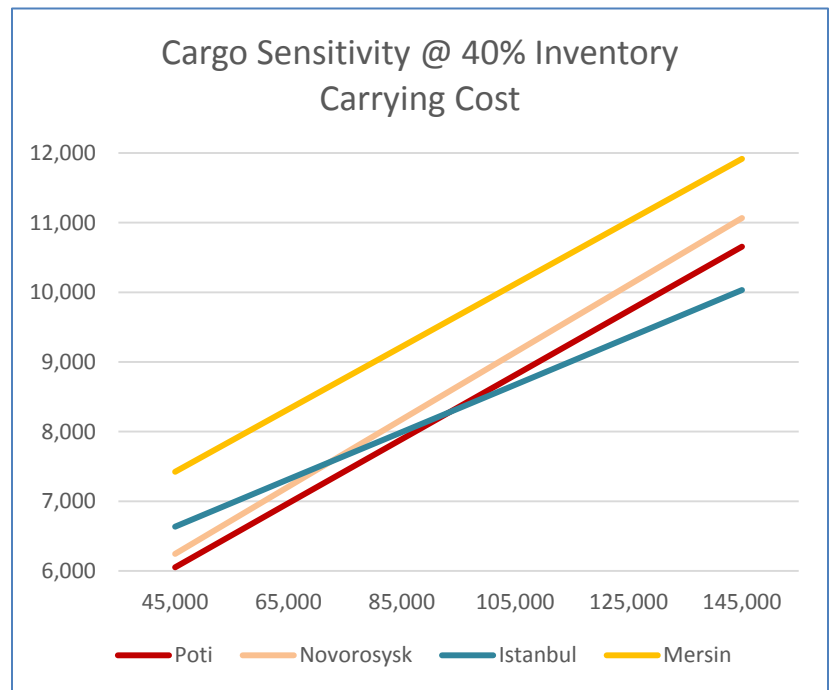
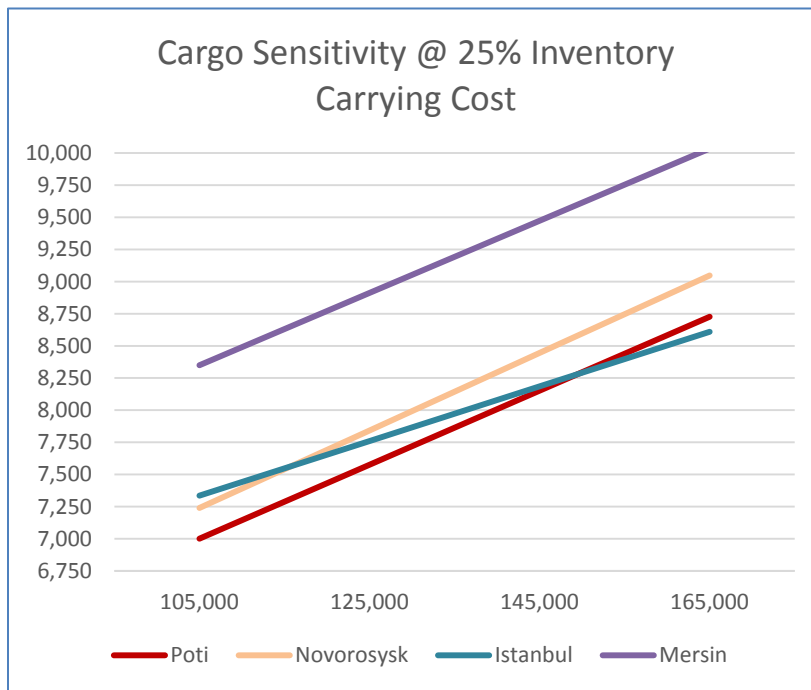
Europe/Baku 40' Container	Poti	Novorossiysk	Istanbul	Mersin
Ocean Transit	25	25	17	20
Inland Transit	2	4	6	6
Total Time	27	29	23	26

Asia/Baku 40' Container	Poti	Novorossiysk	Istanbul	Mersin	Bandar Abbas
Ocean Transit	40	40	25	25	20
Inland Transit	2	4	6	6	6
Total Time	42	44	31	31	26

Asia/Yerevan 40' Container	Poti	Bandar Abbas
Ocean Transit	40	20
Inland Transit	2	6
Total Time	42	26

Source: Times supplied by Carrier and Freight Forwarders

# US East Coast/Baku: Competitiveness Example: (Current)

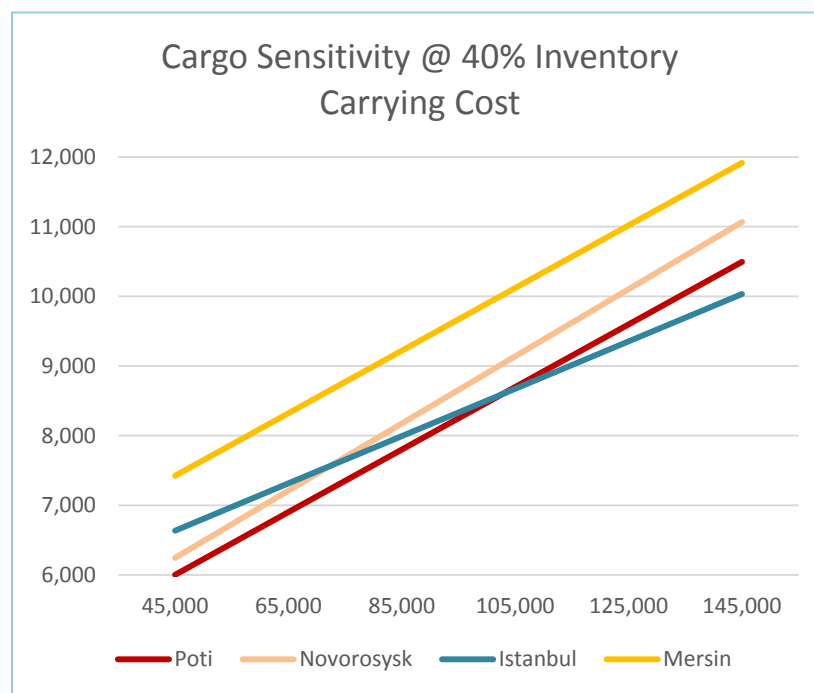
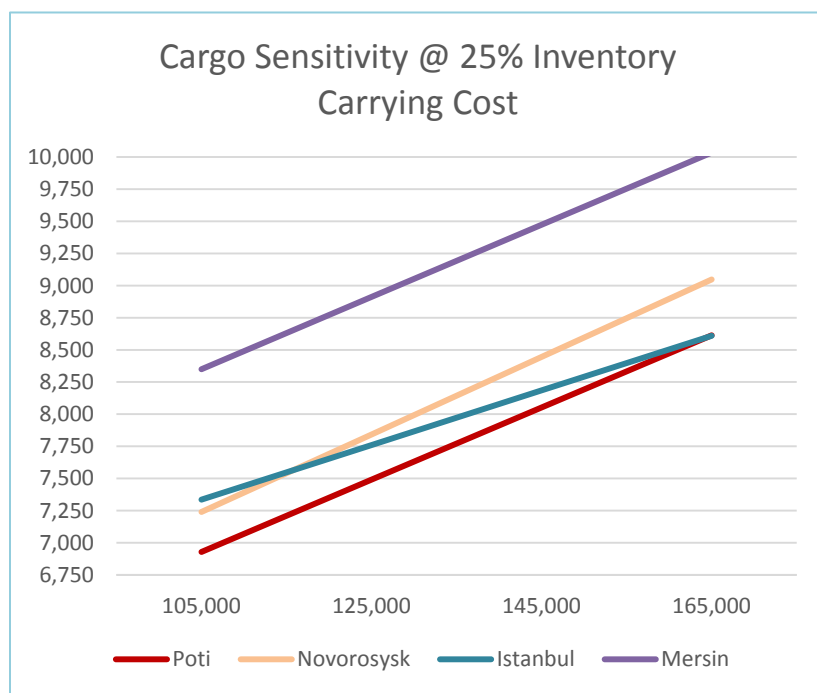


Assumes via Poti takes 42 days



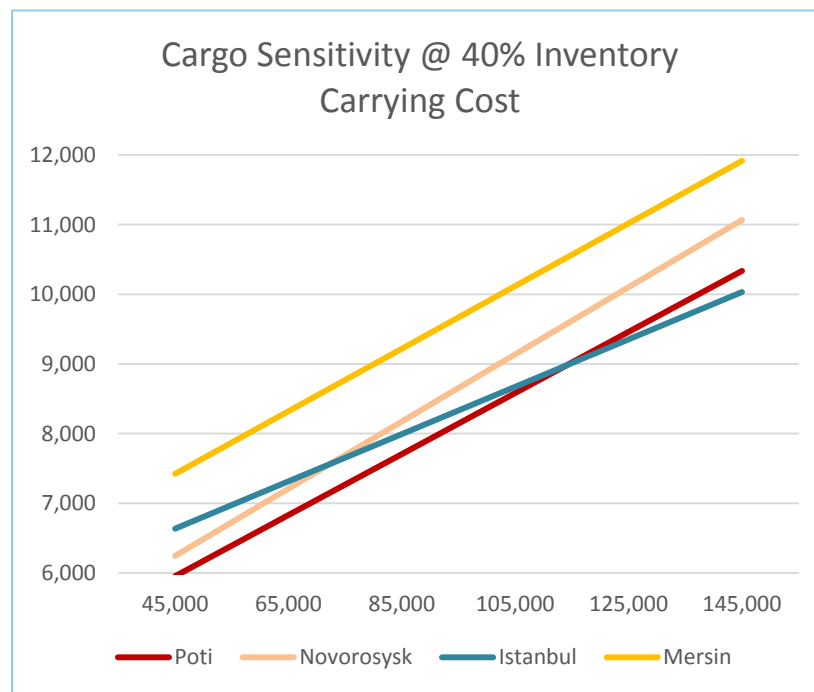
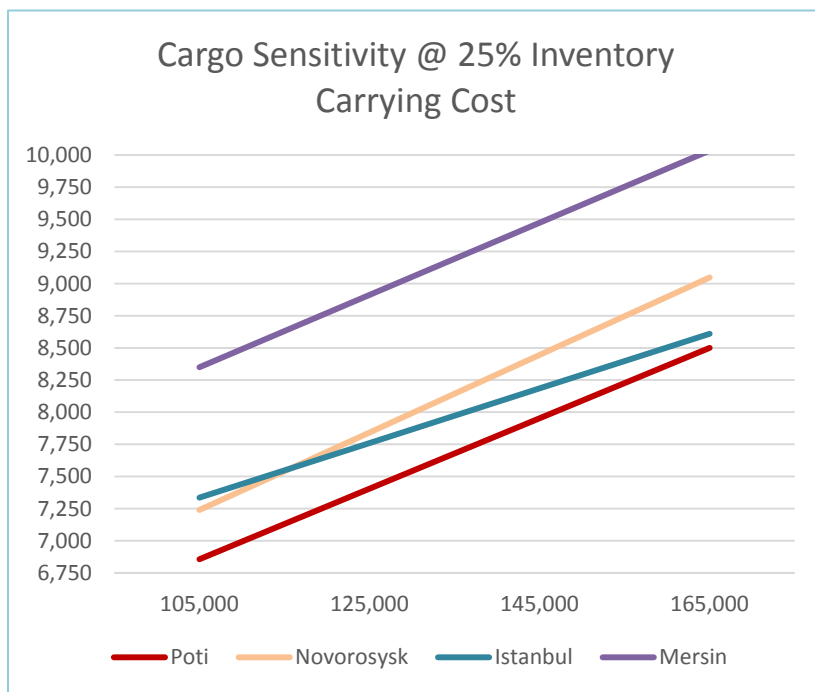


# US East Coast/Baku: Competitiveness Example: (Scenario 1)



Assumes via Poti takes 41 days

# US East Coast/Baku: Competitiveness Example: (Scenario 2)



Assumes via Poti takes 40 days

# Conclusions

## ★ TFS is at an early developmental stage with limited functionality

Encouraging participation is critical for success  
Fees, even at low levels, overcome the benefits for participants  
As functionality increases so will the level of benefits

## ★ TFS will lead to process rationalization and increased productivity

Paper processes work at current volumes but will breakdown as volumes rise  
Delays will reduce volumes as shippers reroute cargo to avoid congestion  
Implementing TFS at current volumes allows for a smooth transition

## ★ Not a matter of whether to implement TFS; A matter of when

Aligns Georgia with leading trading partners and global norms  
Will ultimately reduce transit times, increase reliability, and drive volumes



# DISCUSSION